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Trends of standard of living preferences of economics university students as a result of the economic crisis

Abstract. One of today's central subject ranges is the theme of personal financial decisions. Standard of living preferences are also closely related to these. The generation that will soon enter the labor market still has these questions in front of them. This is the reason why we focused on university students in our study. We asked Hungarian, Austrian, and Slovak economics students in our questionnaire research. We conducted the study in 2 successive years, in the autumn of 2019 and the autumn of 2020. The first phase of the coronavirus pandemic happened between the two occasions. We examined the received responses along the lines of demographic variables, with the application of linear modelling and decision trees. The year was proven to be the most important variable, which indicates that the crisis caused by the coronavirus had a significant effect on the ideas of students regarding a better standard of living. Our results not only highlight the importance of financial literacy, but also show that personal opinions transform in a crisis regarding the criteria that embody a higher standard of living. It appears that a severe economic crisis increases the sense of responsibility and the importance of future security. Of course, because of the short time that passed, the practical verification of our findings will have to wait.

Keywords: Financial Literacy; University Students; Standard of Living; Preferences; Economic Crisis

JEL Classification: A23; G53; M59

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1. Introduction

The new feature in our study is that it examines the effects of a new type of economic crisis, a crisis caused by healthcare reasons. The other important feature is its timeliness. Research into the financial literacy of university students started decades ago (Beal & Delpachitra, 2003; Chen & Volpe, 1998; Danes & Hira, 1987) and it has a history of many years in Hungary as well (Béres et al., 2013). A part of the financial literacy of university students is their ideas regarding

the future. In our study, from among these we focused on the preferences related to standard of living and the changes that occur in a crisis. After reviewing the relevant literature, we introduce our applied methods: we examined the responses to the questionnaire with linear models and decision tree algorithms, with the use of demographic variables as a group creating criteria. During the analysis of our results, we present the discovered correlations. Among our conclusions, we regard the most important that an economic crisis increases the sense of responsibility of today's students regarding the future of their own children.

2. Brief Literature Review

One of the possible indicators of the success of financial literacy is standard of living. The OECD recognized the fact that macroeconomic indicators, such as GDP, provide no information whatsoever regarding people's standard of living. This recognition led to the creation of the Better Life Index (Kerényi, 2011). The OECD compiled the index from a total of 11 components, including housing conditions, household income and job opportunities.

Among OECD members, housing is one of the most important standard of living indicators in the United States, Norway, and Australia. In Canada, the United States and in New-Zealand large homes are preferred by high income people, in Scandinavia the highest possible level of public utilities is significant. With all these preferences the lowest housing prices are in South-Korea, Columbia, and Estonia. Our research studies university students of 3 countries, Austria, Hungary, and Slovakia. Better housing is a determinant of standard of living with only a lower than medium importance. It is the most significant in Austria, second are the Hungarians, and Slovaks deem housing the least important. In Slovakia 1.1, in Hungary 1.2, in Austria 1.3 rooms/person is considered as an acceptable home size. From the aspect of public utilities, the situation is the best in Austria and Slovakia, here over 99% of homes include at least the most basic requirements, such as a flushing toilet. In Hungary, this number is 97%. From the aspect of expenses, a quarter of Slovak incomes are spent on housing expenses, in Hungary and Austria one-fifth. Housing conditions not only play a role in determining current standard of livings, but they also define the future, they primarily influence the future of children (Harker, 2007).

The financial literacy of today's university students, the adults of the future, is a central issue. On the one hand because soon they will be the responsible decision makers, and the parental pattern is not always the basis for making good decisions. On the other hand, soon they will be parents themselves, and one of their tasks will be to show good financial behavior patterns to their children, since parental pattern is one of the most strongly influencing sources of information (McNeill & Turner, 2013). The financial activities of youth influence later life. Among students who use student loans for their studies, pension purpose savings are 36% less than among those who pay for their own studies (Treger & Wendel, 2021). Behavior related to early savings for pension is primarily an indicator of long-term planning. Since its role is not in the development of an everyday safety net, in an unexpected crisis its correlation with immediate action and decisions is not necessarily strong. At the same time, and unforeseen crisis may force respondents to dip into these savings.

The creation of a certain financial future was analyzed by a Singapore study (SCB, 2021). The basis was the expenses involved in the «big events in life» (university studies, buying a home, wedding, the birth of children, buying a car, home renovation, retired life). The most important message of the study is that the greatest advantage children have is the time that will pass until they become adults. Thus, the creation of a certain financial future cannot begin «too early». The results highlight the role of financial education. It calls attention to such simple knowledge as baby-bonds and the importance of a future based on youth-funds as well as the 50-30-20 rule (half of one's income should be spent on expenses, 30% on recreation and 20% should go to savings, to be prepared for unexpected future events). The most important conclusion of the study is that parents can mostly create the foundation for the financial security of their children by teaching them financial knowledge.

The significance of this subject is magnified if an unexpected economic crisis upsets «the normalcy of everyday life» such as the 2008 credit crisis or the recession caused by the coronavirus that directly endangers human resources. In these cases, the deterioration of the general financial situation also affects the financial security of individuals/households. According to a Hungarian assessment, most of the generation in their 20s has no personal financial safety net (Csath, 2020), which in case of a crisis will almost certainly be a source of financial difficulties.

According to an American assessment connected to the COVID-19 crisis (Horowitz et al., 2021), in the end of 2020, 42% of men and half of women thought that their financial situation was worse than average. 53% of young people under 30 had the same opinion. The role of educational qualification is proven by the fact that almost 60% of those with a maximum of high school qualification were dissatisfied with their financial situation. Among those with college degrees this number is still above 50%, while among those who had at least university BA degrees only one third of the respondents deemed their financial situation worse than average. An income reduction caused by an unexpected recession affects low-income people particularly hard. Three quarters of those in this group see their financial situation and future as bleak, while among those with average income this number is only 42%. From the full sample, there were about 40% who spent less because of the pandemic than in the previous period, 40% whose spending did not change significantly, and approximately 20% responded that they spent more during the pandemic, than in the previous period. High income people reduced their spending the most, only one tenth of them spent more during the pandemic. The explanation to this may be that those with high incomes spent the most previously beyond their everyday needs, meaning that they could reduce spending easily.

Thus, the extent of spending is a standard of living dependent behavior, one of the determining factors of financial culture. Of course, behavior that can be observed in financial areas does not solely depend on circumstances and financial literacy, but also on the culture where the respondent grew up and socialized (Bárczi & Zéman, 2015). According to an Indian assessment (Sinha, 2020), for instance in Indian families primarily short-term planning is typical: they plan on childbearing, healthcare, and accident expenses, but they only start saving for retirement around the age of 50. The motivations may be the expectedly rising costs of living, medical condition deteriorating with age, the reduction of family support, on top of the fear that the savings made will not last until the person's death. At the same time, the saving goals that are important at a young age are in the last place over the age of 50. Decisions made in a crisis are mainly determined by how much emergency savings the affected persons have. According to studies, the effect of these savings on financial decisions is much stronger than that of income level (Treger & Wendel, 2021).

3. Purpose

Literature examines the effects of COVID-19 on the economy and everyday life from numerous aspects. We found several papers in connection to the 3 countries studied by us. Multiple assessments have been performed in Hungarian higher education (Hornyák, 2013; Luksander et al., 2014; Németh et al., 2017). The Austrian situation is also analyzed by numerous studies (Cupak et al., 2017; Fessler et al., 2020; Greimel-Fuhrmann et al., 2016). Many assessments were performed in Slovakia as well, which primarily targeted the education system and the students who learn there (Brokesova et al., 2017; Kubak et al., 2018). However, we could not find any research that deals with financial preferences, for instance how the criteria of higher standard of livings are viewed. Thus, in our questionnaire we asked a question that is connected to it: «What does better standard of living mean to you?» We gave four response choices:

- better home;
- financial security for my children;
- financial security for retirement;
- higher income.

4. Results

The distribution of the responses to the question were more-or-less balanced with regards to three response choices - a proportion of each was near one third-, the fourth choice - «a better home» - was selected by only one fiftieth of students. Financial security for retirement was selected by the most (38%), financial security for my children and higher income was selected equally 30-30% (Figure 1).

The goal of the analysis was to be able to draw a decision tree map, which explains well what influenced the responses of economics students to this question. First, we examined if the potential explanation variables show any kind of correlation by themselves with the response to the question. In each demographic group, as well as according to the level of financial well-being, financial attitude and financial behavior, different responses were given by the economics

students to the above question. It should be noted that we examined the quantitative variables independently and in a categorized form. We performed the categorization by quantiles and averaging (divided into above average and below average groups), and we chose the division that results in larger differences.

We examined every correlation for the complete sample, meaning totaling 2 years. We found significant correlations in 4 cases, these are the year of the study, the country, as well as the level of financial sense of security and financial attitude (Table 1).

The most markedly significant divergence ($\chi^2(3) = 155.379$; $p < 0.001$) came in the year of the study, meaning that during the pandemic situation we found a strong change in what a better standard of living means to economics students. Before the pandemic situation «higher income» and «financial security for retirement» were the two most popular responses with 40-40% ratio, but after the pandemic situation «higher income» dropped to 21% and its place as taken by «financial security for my children» with 40% (Figure 2).

When examining the two years separately, we get a very different picture. The variables that generate significant divergences in the complete sample, fail to show significant correlation when we view each year separately, in what a better standard of living means to economics students. All of this is primarily caused by the fact that the value or distribution of variables that show significant correlation in the complete sample greatly changed from 2019 to 2020. Thus, if the question was posed before the pandemic situation or during the pandemic situation. Meaning that what appears here is the moderating effect of the study's year.

In both periods the distribution of responses according to countries differed significantly, but men and women only marked the meaning of a better standard of living in a different ratio in 2019, while marital status showed significant correlation with our result variable in 2020. See: Table 2.

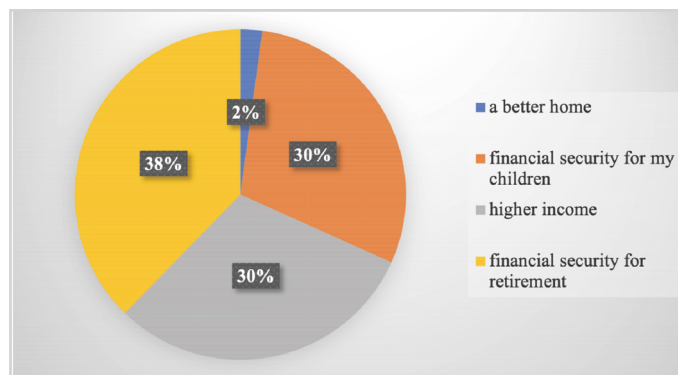


Figure 1:

Distribution of responses to the question «What does better standard of living mean to you?»

Source: Compiled by the authors

Table 1:

Test statistics of correlation of responses to the question «What does better standard of living mean to you?» with other variables in the complete database

	χ^2	DoF	Sig.
Assessment year	155.379	3	<0.001
Country	68.605	6	<0.001
GAD7 - Stress (Binned) - Average	124.589	3	<0.001
Financial wellbeing (Binned) - Median	113.103	3	<0.001
Financial Attitude (Binned) - Tercile	13.053	6	0.042
Financial Behavior (Binned) - Decile	26.188	27	0.508
Gender	0.679	3	0.878
Location	7.705	12	0.808
Marital status	16.212	12	0.182
How satisfied are you with your private life?	14.917	12	0.246
Are you a full or part time student?	2.028	3	0.567
What is your occupation?	5.094	6	0.532
What type of employment are you in?	13.819	12	0.312

Note: DoF is a degree of freedom.

Source: Compiled by the authors

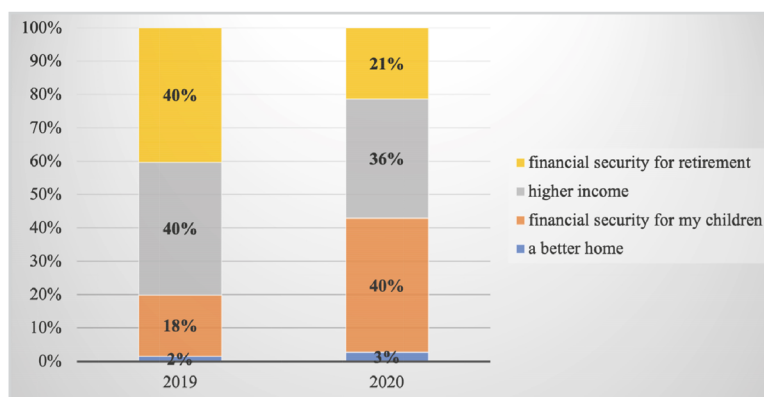


Figure 2:

Distribution of responses to the question «What does better standard of living mean to you?» during the two years of the survey

Source: Compiled by the authors

Table 2:

Test statistics of correlation of responses to the question «What does better standard of living mean to you?» with other variables in 2019 and 2020

	Before the Pandemic (2019)			During the Pandemic (2020)		
	χ^2	DoF	Sig.	χ^2	DoF	Sig.
Country	136.706	6	<0.001	87.484	6	<0.001
GAD7 - Stress (Binned) - Average	2.195	3	0.533	5.756	3	0.124
Financial wellbeing (Binned) - Median	9.507	6	0.147	7.137	6	0.308
Financial Attitude (Binned) - Tercile	22.484	27	0.712	30.129	27	0.308
Financial Behavior (Binned) - Decile	15.639	3	0.001	4.557	3	0.207
Gender	13.694	12	0.321	6.289	12	0.901
Location	8.611	12	0.736	22.811	12	0.029
Marital status	17.300	12	0.139	11.002	12	0.529
How satisfied are you with your private life?	6.550	3	0.088	2.368	3	0.500
Are you a full or part time student?	9.279	6	0.158	7.358	6	0.289
What is your occupation?	15.836	12	0.199	17.892	12	0.119

Note: DoF is a degree of freedom.

Source: Compiled by the authors

With regards to the responses to the question «What does better standard of living mean to you» the significant divergence was mainly caused by the Austrian sample, since there in 2019 nobody selected the «financial security for my children» or the «better home» responses. Meanwhile, in comparison with Hungarian and Slovak economics students, they selected «higher income» and «financial security for retirement» as factors important to better standard of living. The «better home» response barely showed up in the Hungarian and Slovak sample, in these countries approximately every fourth respondent marked the «financial security for my children» response (Figure 3).

By 2020 the distribution of responses was rearranged together as well as separately in each country. The greatest difference is seen in the Austrian responses, since the proportion of students who identified better standard of living with «financial security for my children» rose from zero to 45%. An increase is seen in the Hungarian and Slovak subsamples as well, in the case of students from these two countries the proportion of those selecting this grew by nearly one half. The proportion of those selecting «financial security for retirement» did not change much, it remained on an almost identical level. «Higher income» as the choice meaning better standard of living was selected at a lower proportion in all 3 countries, especially in Austria where the proportion of these responses declined from 48% to 6%. When examining the 2020 distributions we see that the Slovak students selected «higher income» in a somewhat greater proportion, they selected - in practically identical proportion - «higher income» and «financial security for my children» whereas in Hungary the «financial security for my children» response became the most popular selection. In Austria again two responses were typical (a total of 92% of respondents marked these): «financial security for retirement» and «financial security for my children» (Figure 4).

In the case of high or low level of financial sense of security, there is no significant difference in the view of a better standard of living, meaning that the respondents of both groups marked «higher income» and «financial security for retirement», «financial security for my children» or a «better home» practically in the same proportion (Figure 5 and Figure 6).

In the case of financial attitude, we divided the population into three groups: those with low-, medium- and high-level attitude. There was no significant divergence in the response distribution from the three groups. In 2019, according to the entire population distribution they overwhelmingly selected «higher income» and «financial security for retirement». In a smaller part they selected «financial security for my children» and 1-2% selected a «better home». For the period after the pandemic the «only» change was that «financial security for my children» became more important instead of «higher income» (Figure 7 and Figure 8).

Even through some waves can be detected among certain deciles of financial behavior in the case of preferences in the goals meaning a better standard of living, a significant difference cannot be shown between 2019 and 2020, thus the effect of the pandemic was equal for each quantile (Figure 9 and Figure 10).

In 2019 men considered «financial security for my children» important in a higher proportion than women. Only 13% of women selected this, among men the number was one fifth. In contrast

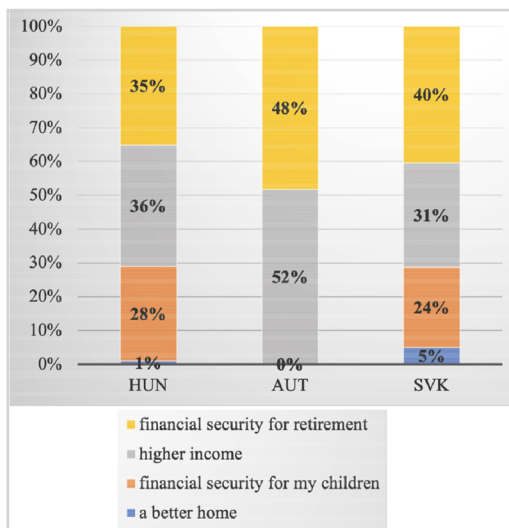


Figure 3:
Correlation of responses to the question «What does better standard of living mean to you?» with the country of residence in 2019
 Source: Compiled by the authors

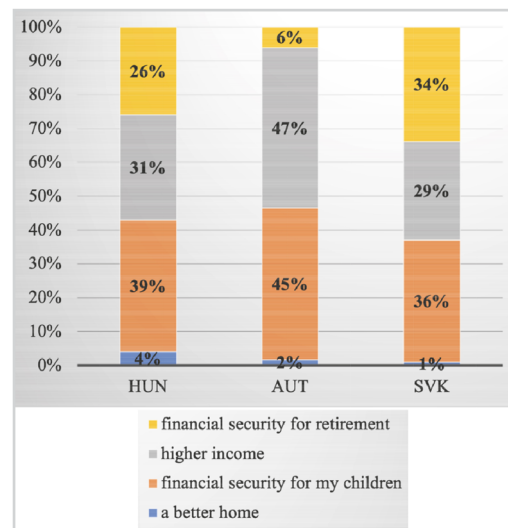


Figure 4:
Correlation of responses to the question «What does better standard of living mean to you?» with the country of residence in 2020
 Source: Compiled by the authors

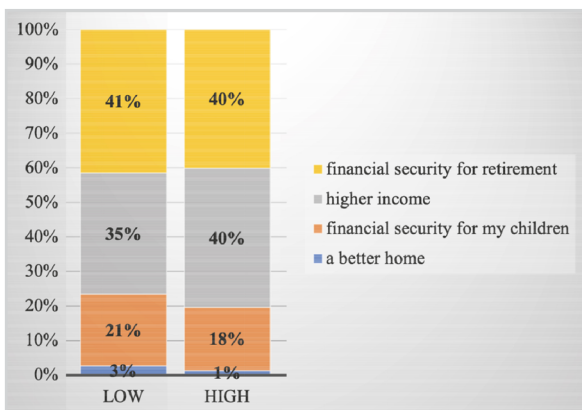


Figure 5:
Correlation of responses to the question «What does better standard of living mean to you?» with the perceived level of financial security in 2019
 Source: Compiled by the authors

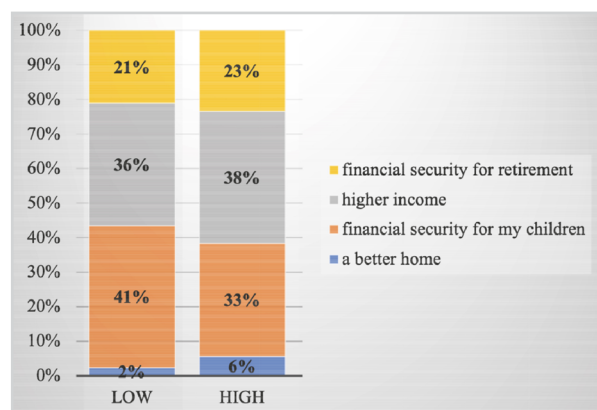


Figure 6:
Correlation of responses to the question «What does better standard of living mean to you?» with the perceived level of financial security in 2020
 Source: Compiled by the authors

a «better home» was more popular among women (3%), while practically no men selected it (Figure 11 and Figure 12).

The place of residence did not show a significant correlation either in 2019 or 2020 with what a better standard of living means to the students. Regardless of where they live, in the countryside, in Budapest or around a city, they made similar choices from the 4 options as meaning a better standard of living (Figure 13 and Figure 14).

No significant difference can be shown between full time and part time students either in 2019 or 2020 (Figure 15 and Figure 16). We failed to find a difference according to if the respondent has a job while attending university, and if yes, what type (Figure 17 and Figure 18). The responses do not differ according to job position either (Figure 19 and Figure 20).

The quantitative variables originate from the financial knowledge, financial attitude, and financial behavior indices, as well as certain issues of the financial sense of security, furthermore from the results of scales that measure private life satisfaction and marital status. By fitting a linear model on each, we examined if a difference can be shown in connection with the definition of a better standard of living. Of course, we marked the year of the study in the models as an independent variable, and as the interaction of a question regarding a better standard of living.

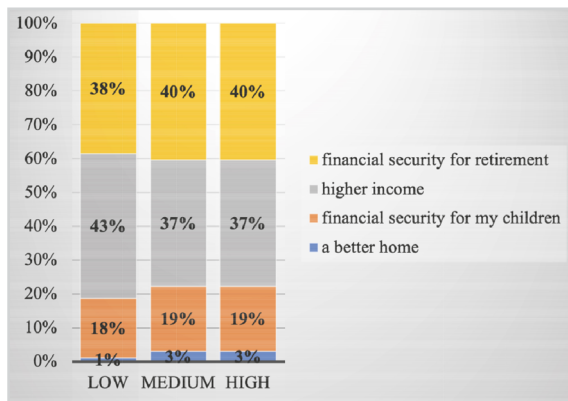


Figure 7:

Correlation of responses to the question «What does better standard of living mean to you?» with the level of financial attitude in 2019

Source: Compiled by the authors

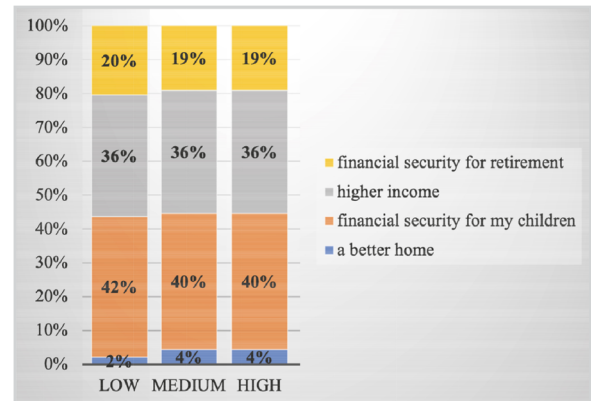


Figure 8:

Correlation of responses to the question «What does better standard of living mean to you?» with the level of financial attitude in 2020

Source: Compiled by the authors

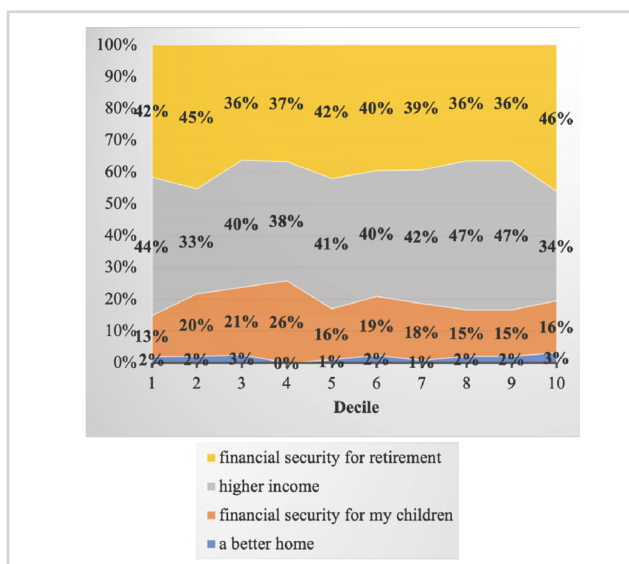


Figure 9:

Correlation of responses to the question «What does better standard of living mean to you?» with the level of financial behavior in 2019

Source: Compiled by the authors

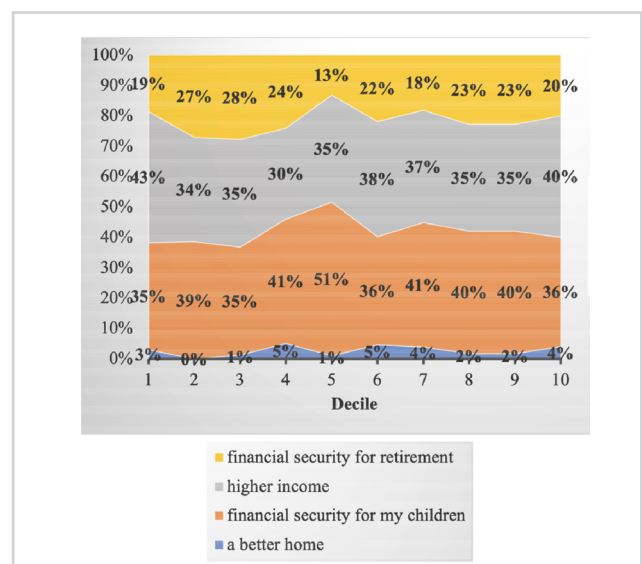


Figure 10:

Correlation of responses to the question «What does better standard of living mean to you?» with the level of financial behavior in 2020

Source: Compiled by the authors

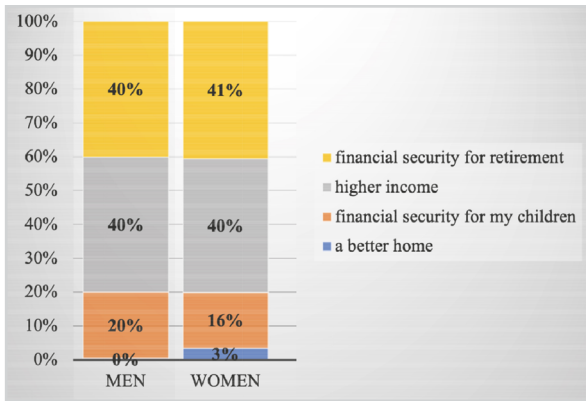


Figure 11:
 Correlation of responses to the question «What does better standard of living mean to you?» with gender in 2019

Source: Compiled by the authors

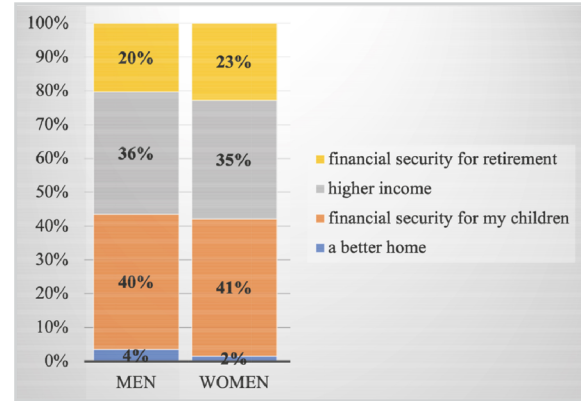


Figure 12:
 Correlation of responses to the question «What does better standard of living mean to you?» with gender in 2020

Source: Compiled by the authors

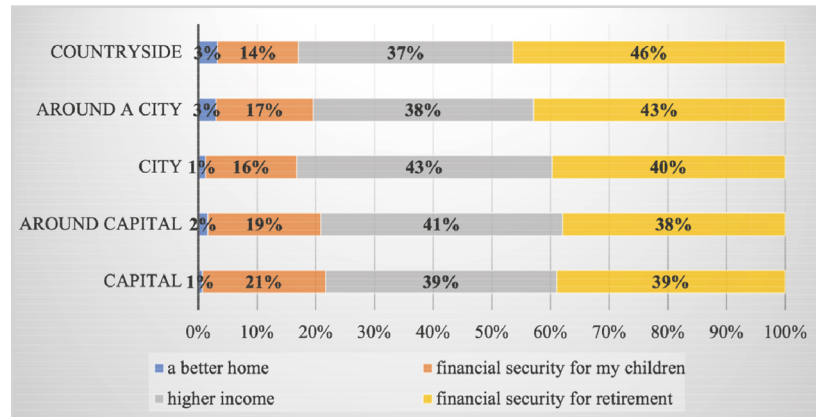


Figure 13:

Correlation of responses to the question «What does better standard of living mean to you?» with the type of settlement in 2019

Source: Compiled by the authors

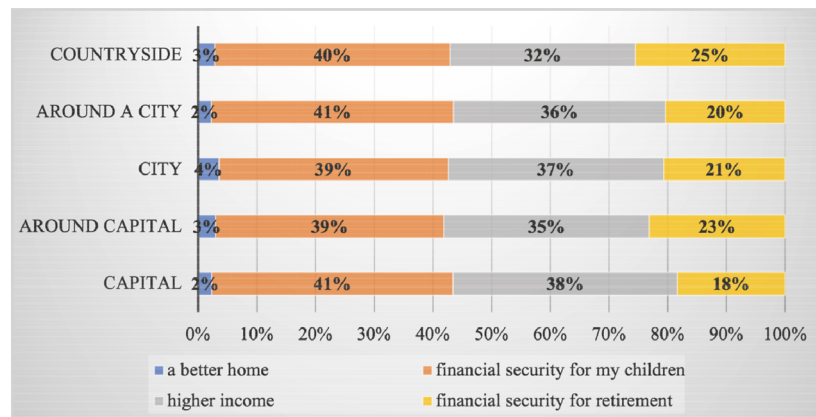


Figure 14:

Correlation of responses to the question «What does better standard of living mean to you?» with the type of settlement in 2020

Source: Compiled by the authors

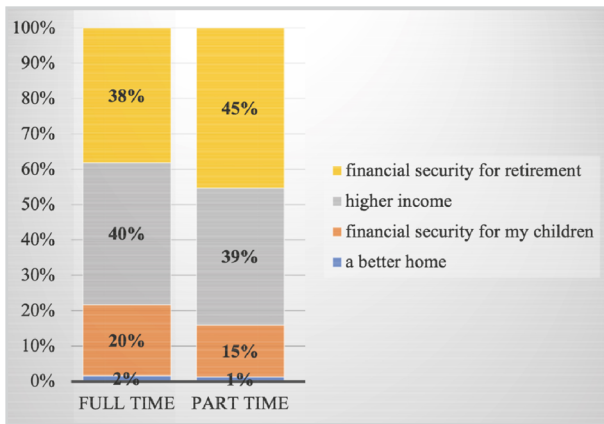


Figure 15:
Correlation of responses to the question «What does better standard of living mean to you?» with study mode in 2019
 Source: Compiled by the authors

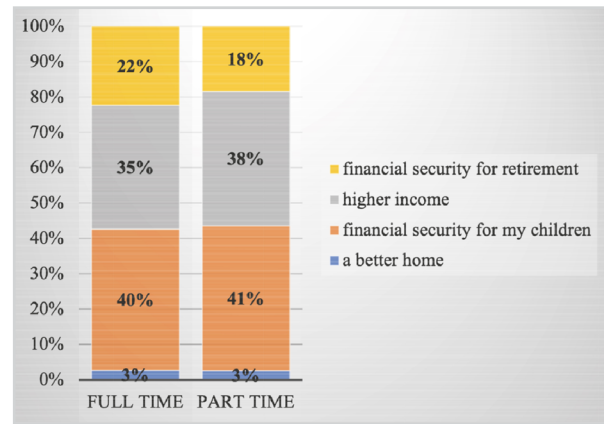


Figure 16:
Correlation of responses to the question «What does better standard of living mean to you?» with study mode in 2020
 Source: Compiled by the authors

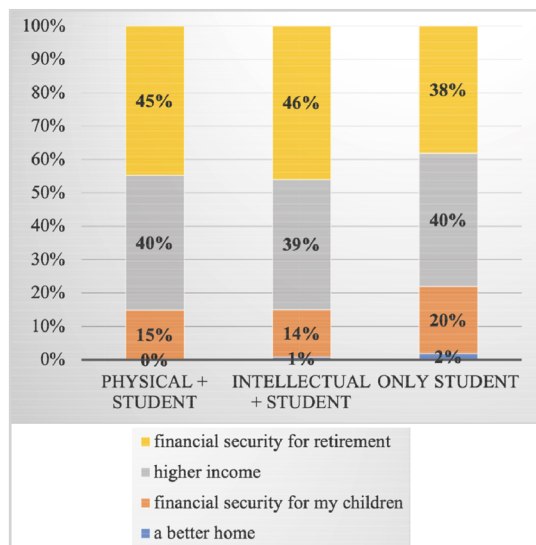


Figure 17:
Correlation of responses to the question «What does better standard of living mean to you?» with occupation type in 2019
 Source: Compiled by the authors

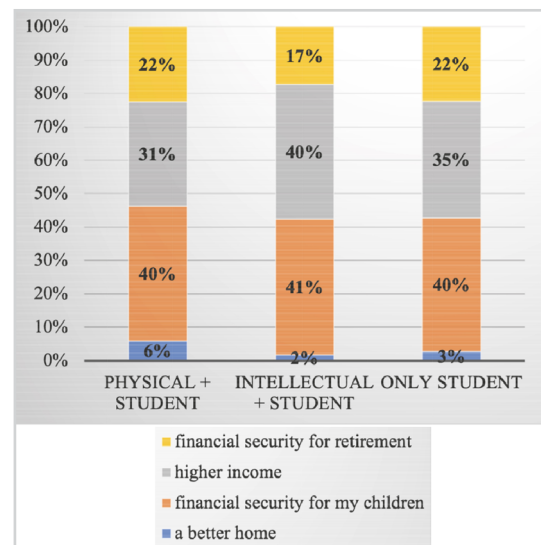


Figure 18:
Correlation of responses to the question «What does better standard of living mean to you?» with occupation type in 2020
 Source: Compiled by the authors

In the case of every question, the initial model was the following:

$$Y = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{1i} X_{2i} , \tag{1}$$

where:

X_1 - year of study (2019; 2020);

X_2 - standard of living (Responses to the question «What does better standard of living mean to you?»).

In four cases out of the six, fits of the models were significant, but in the case of financial attitude and private life satisfaction, this is only so because of the relatively large sample size. Only the first model has a remarkable explaining power: the level of financial wellbeing is explained at 61.61% by the variables involved in the model. In the case of financial knowledge 13.89% is a lower level, in the case of financial attitude and private life satisfaction full explanation is at the most 1-2%. In the following, we only deal with the significant models (Table 3).

In the model of financial wellbeing the year of study has a relatively high explaining power, it also exerts a detectable effect in the model of financial knowledge, but in the case of financial attitude and private life satisfaction its effect is relatively weak: below 1% and 3%. The responses given to

the question related to better standard of living, independently they do not exert a significant effect in any of the cases, the reason for this is that it represents rather low explaining power in the trend of quantitative variables. However, in the case of financial knowledge a significant interaction can be shown between the variables of the year and the standard of living, which has a 0.52% partial explaining power (Table 4).

Among the 4 significant models, the variable measuring the better standard of living option failed to show significant effect, and its interaction with the year is only significant in the case of financial knowledge (Table 5 and Table 6), but the difference is so small here that we can practically state that the trend of standard of living-preferences does not depend on financial knowledge.

We only mention the interaction because it directed our attention to a reversed trend. According to this, those who had the lowest financial knowledge in 2019 were the ones that saw «better home» as better standard of living, but in 2020 those with higher financial knowledge responded in this way (Figure 21). Very likely this is the result of a spectacular reduction in real estate prices in all 3 studied countries during the pandemic, thus the economics students with higher financial knowledge defined a «better home» as an easily attainable goal, meaning that a better standard of living is provided by a «better home».

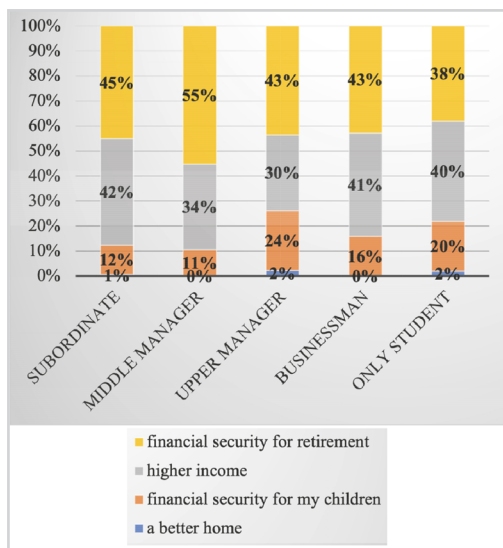


Figure 19:
 Correlation of responses to the question «What does better standard of living mean to you?» with job position in 2019
 Source: Compiled by the authors

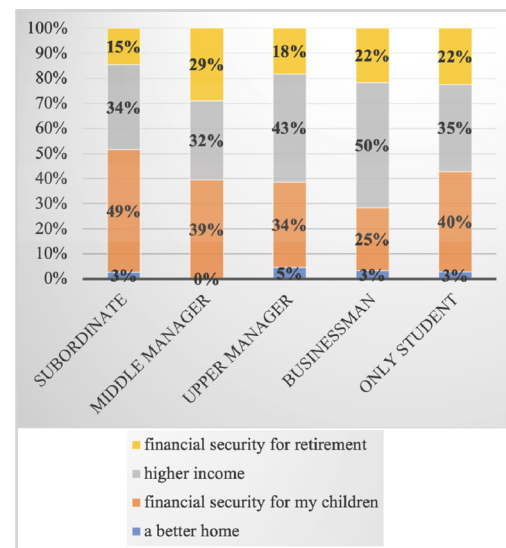


Figure 20:
 Correlation of responses to the question «What does better standard of living mean to you?» with job position in 2020
 Source: Compiled by the authors

Table 3:
 Global statistics of linear models

Parameter	Financial sense of security	Financial literacy	Financial Attitude	Financial behavior	Private life satisfaction	Marital status
R- square	0.6161	0.1389	0.0115	0.0012	0.0340	0.0043
F	492.200	49.490	3.574	0.370	10.790	1.313
df1	7	7	7	7	7	7
df2	2147	2147	2147	2147	2147	2147
Sig.	<0.001	<0.001	0.001	0.920	<0.001	0.240

Source: Compiled by the authors

Table 4:
 Explained variances of significant linear models and partial Eta-squared indices of the parameters

Parameter	Financial sense of security	Financial literacy	Financial Attitude	Private life satisfaction
R-square	0.6161	0.1389	0.0115	0.0043
Year	0.5996	0.1282	0.0075	0.0295
Standard of living	0.0003	0.0005	0.0038	0.0007
Year *	0.0001	0.0052	0.0008	0.0035
Standard of living				

Source: Compiled by the authors

Table 5:
F-statistics of the parameters of significant linear models

Parameter	Financial sense of security (2147)	Financial literacy (2147)	Financial Attitude (2147)	Private life satisfaction (2147)
Intersection (1)	32789.457	30420.691	10595.137	3185.925
Year (1)	977.415	63.235	7.712	29.275
Standard of living (3)	0.125	1.974	1.527	0.908
Year *	0.099	3.772	0.570	2.496
Standard of living (3)				

Note: Parameters and the degree of freedom of remnants are depicted in the brackets.

Source: Compiled by the authors

Table 6:
Significance values of the parameters of significant linear models

Parameter	Financial sense of security	Financial literacy	Financial Attitude	Private life satisfaction
Intersection	<0.001	<0.001	<0.001	<0.001
Year	<0.001	<0.001	0.006	<0.001
Standard of living	0.945	0.116	0.206	0.436
Year *	0.960	0.010	0.635	0.058
Standard of living				

Source: Compiled by the authors

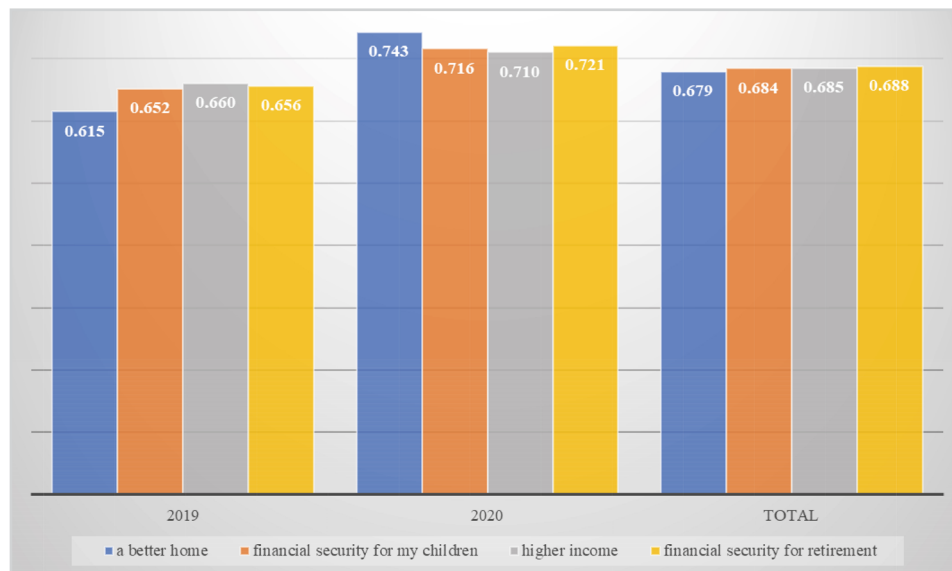


Figure 21:

Development of financial literacy vis-à-vis the orientation towards a better standard of living in 2019, in 2020, and in the complete sample (average of 2019 and 2020)

Source: Compiled by the authors

PRIVATE LIFE

In the model of private life, the year had a significant effect. The selection between the better standard of living options was only near the significant 5% value in the case of interaction. The effect of the year caused a significant deterioration in the quality of private life by 2020. The effect of interaction by itself was not significant, and a significant difference cannot be shown between any of the better standard of living options and the quality level of private life (Table 7), but when comparing the 2 years a significant difference can be shown only between «financial security for retirement» and «higher income» (Table 8). The significant difference narrowed down to these two categories, says that in the case of those to whom a better standard of living means «financial security for my children» or a «better home» the quality of private life deteriorated (Figure 22).

Finally, we attempted, with the help of a decision tree map, to analyze the trend of goals meaning a better standard of living in certain demographic groups of the economics students. The first ramification in the decision tree map - not surprisingly - is based on the year of the study.

In 2019, besides «financial security for retirement», «higher income» was the most popular; in contrast in 2020, during the first wave of the pandemic, «higher income» lost some of its popularity and «financial security for my children» took its place (Figure 23).

On the branch featuring the period before the pandemic (Node 1) the next ramification happened based on countries (Figure 24). In the case of Hungary and Slovakia, the distributions are very similar, only a difference of a few percentage points can be demonstrated. In the case of Slovaks «better home» was only marked as a synonym of a better standard of living by 4.9% and in the case of Hungarians only 1%, but «financial security for my children» was more frequent among Hungarians 4.1% (HUN: 27.9%; SVK: 23.8%). In the case of «financial security for retirement» a higher percentage value was measured among Hungarians, the difference here was only 5.1% (HUN: 36.0%; SVK: 30.9%), «higher income» was selected more frequently by Slovak economics students (40.4% in contrast with the Hungarian 35.0%). However, in the Austrian sample (Node 4) we measured fundamentally different distributions: nobody selected «better home» or «financial security for my children», «financial security for retirement» and «higher income» meant a better standard of living for them in a practically equal proportion (51.7% and 48.3%).

Table 7:
Significance values of differences in the quality of private live in 2019, in 2020, and in the complete sample

Standard of living	Total	2019	2020
Home – Child	0.899	0.982	0.912
Home – Retirement	0.933	0.829	0.999
Home – Income	0.944	0.839	0.998
Child – Retirement	0.991	0.520	0.123
Child – Income	0.983	0.554	0.206
Retirement – Income	1.000	1.000	1.000

Source: Compiled by the authors

Table 8:
Development of the quality of private life vis-à-vis the orientation towards a better standard of living in 2019, in 2020, and in the complete sample (average of 2019 and 2020)

Better standard of living...	Total	2019	2020	t (2147) *	p*
... better home	3.120	3.250	3.000	0.629	0.529
... financial security for my children	3.270	3.380	3.160	1.959	0.050
... financial security for retirement	3.250	3.530	2.960	6.264	<0.001
... higher income	3.240	3.520	2.960	5.411	<0.001

Note:

*: 2019 vs 2020.

Source: Compiled by the authors

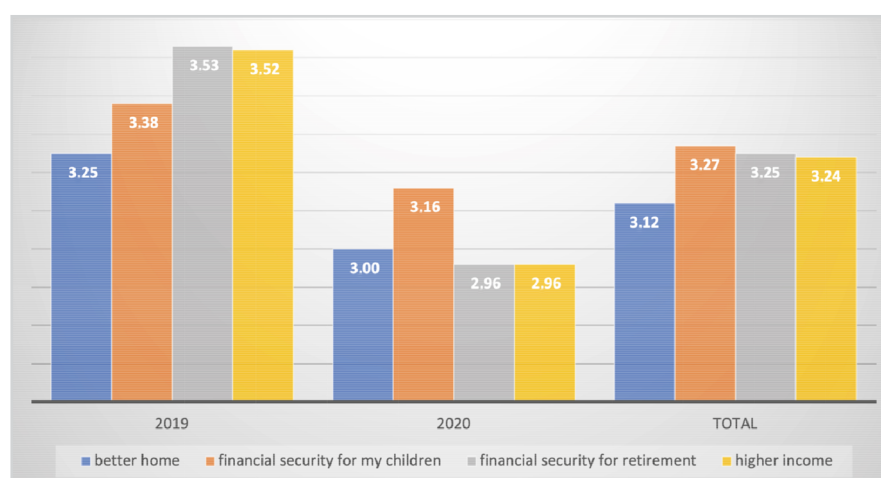


Figure 22:
Correlation of private life quality level and the goals meaning a better standard of living in 2019 and 2020 as well as in the complete sample

Source: Compiled by the authors



Figure 23:
First ramification of the decision tree map
 Source: Compiled by the authors

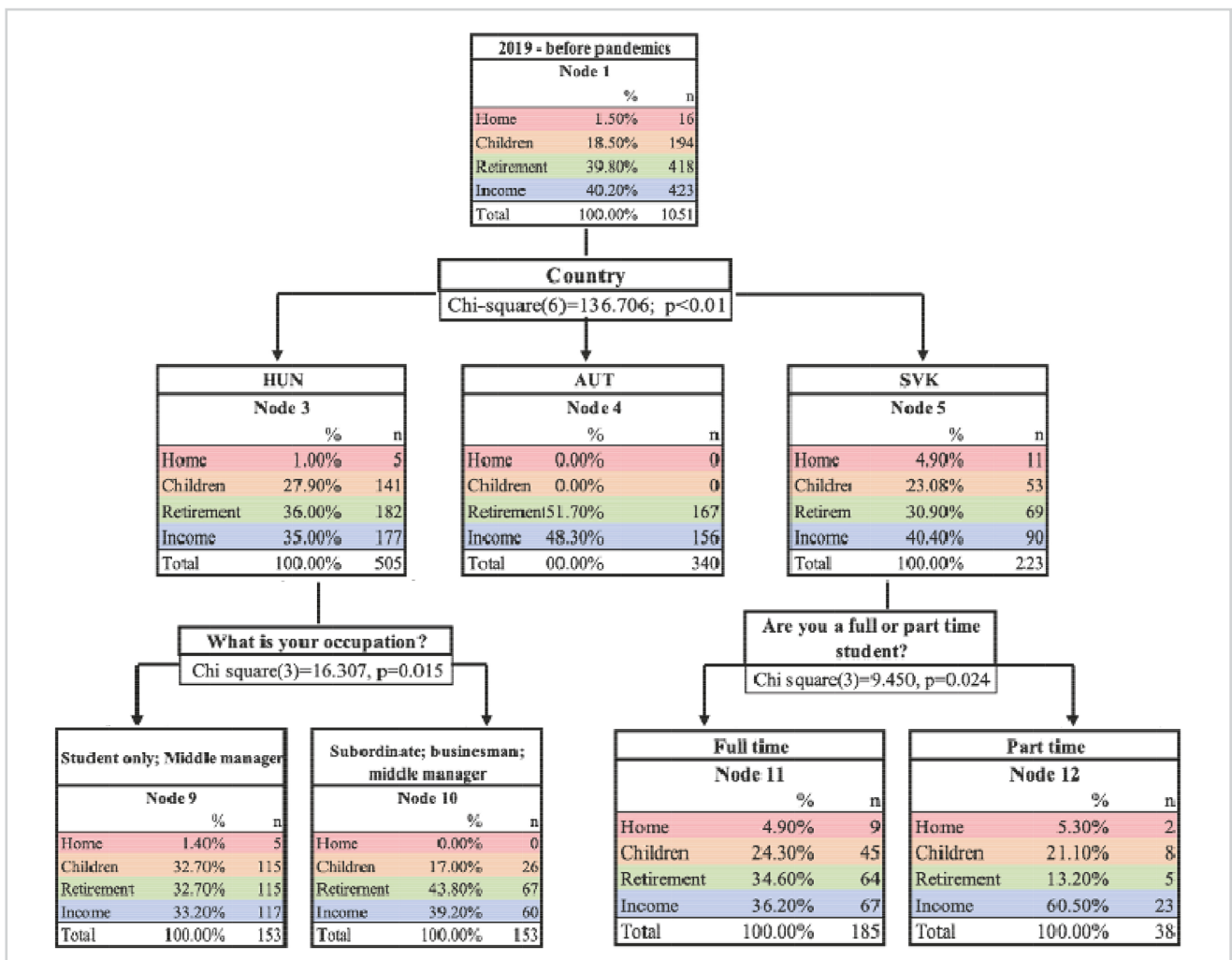


Figure 24:
Ramification of the first node of the decision tree map (in 2019 - before the pandemic)
 Source: Compiled by the authors

In the case of the Hungarian and Slovak sample, the group can be further divided, in the former case based on having a job (Node 3), in the latter case (Node 5) based on full or part time studies. In the Hungarian sample the responses of students and upper management were similar, the other group was comprised of subordinates, businessmen and middle management. In both groups «better home» was selected in a low proportion among the responses, however, while in the only student-upper management group the distribution of the other 3 categories is relatively even, in the subordinate-businessman-middle management group «financial security for my children» is only at 17%. «Financial security for retirement» (43.8%) and «higher income» (39.2%) share the remaining 83%.

The Slovak subsample (Node 5) can be further divided based on full-time or part-time studies (Nodes 11 and 12). A «better home» (full time: 4.9%; part time: 5.3%) and «financial security for my children» (full time: 24.3%; part time: 21.1%) were selected in practically equal proportion. However, «financial security for retirement» is much more popular among full time students (34.6%), than among part time students (13.2%). Almost twice as many marked «higher income» as the embodiment of a better standard of living among part time students (60.5%) than full time students (36.2%).

5. Conclusions

We examined the question from two different aspects, so we summarize our conclusions according to two guiding principles as well. The most important change was the higher valuation of «financial security for my children». Based on demographic groups, in connection with each country, our most important observation was that most students in Austria selected this option (45%), which is important because in 2019 it was not even in the responses. In the case of Hungary and Slovakia by 2020 this response became the most popular among the options, and with this the proportion of respondents grew from $\frac{1}{4}$ to $\frac{1}{3}$. From the aspect of the other demographic variables, we did not find significant differences in the distribution of preferences between the groups. However, we found changes equally in every group: the proportion of those who consider responsibility for their children the most important increased almost twofold in both groups, and at the same time the proportion of those striving for security in their retirement did not decline. The increase in the proportion of those who value the future of their children more, primarily reduced the proportion of those who prefer «higher income».

We observed a similar change according to gender, but our observation somewhat details the results by gender, before the pandemic the priority of «financial security for my children» was higher among men than among women. This was a surprise for us because according to traditional role theories, generally mothers are considered as those sacrificing more for their children. As explanation we assumed that in the case of women emotional motivations dominate in caring for their children. However, men are guided to the same direction on a practical, rational level. Thus, in their case emotional motivations are supplemented by objective elements, this explains the higher proportion of this response. However, because of the pandemic, the attitude of genders changes in relation to this question. The pandemic, the emergency measures, the loss of jobs and income, increased the role of emotional motivations.

We classified the students who have jobs while attending university into several groups, according to working as subordinates, as some level of management, or they have their own business. Among them in 2019 mainly upper management thought about the future of their children, lower managers the least, to whom «higher income» plays a more important role than the members of all other groups. After the first wave of the pandemic those in the subordinate group responded that «financial security for my children» means better standard of living. The proportion of those who think this way also considerably increased among middle managers. At the same time, this group remained the most income centric. In our opinion, the explanation to this is that middle-managers are the most career-motivated, who wish to advance from their current position. Thus, work is the primary determinant in their lives.

The roles of the components of financial culture are determined by the triad of knowledge-behavior-attitude. In the correlation between these and the change in standard of living preferences the only significant factor was the year of the study, which indicates that the pandemic played the most considerable role in the change. The linear models and the decision tree map supported the same result.

Based on our results, our primary conclusion is that the economic crisis caused by the pandemic exerted a considerable influence on the personal financial preferences and the ideas of a better standard of living of students in Hungarian, Austrian and Slovak economics higher education. The

effect mainly results in an increase of their sense of responsibility: the proportion striving for «financial security for my children» increased. This increase was mainly coupled with the decline of those preferring a «higher income». However, generalizing our results is not simple, since the study could only be repeated similarly in the next crisis, and we could not find results of similar studies in literature either. We still hope that with our study we managed to supplement the known picture of the effects of an economic crisis. If we achieved that much, our work was worthwhile.

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